

DOCKET NO. SS0218US (NORT10-00070)  
Customer No. 33000

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor application of : Peter Allen Huboi  
Serial No. : 09/459,380  
Filed : December 13, 1999  
For : METHODS AND APPARATUS FOR VOICE RECOGNITION  
FOR CALL TREATMENT MODIFICATION ON MESSAGING  
Group No. : 2626  
Examiner : Douglas Godbold  
Confirmation No. : 1069

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPEAL BRIEF**

The Appellant has appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner dated September 10, 2009, finally rejecting Claims 1-3, 5-12, 14-19, 21-25 and 27-54. The Appellant filed a Notice of Appeal on January 11, 2010. Appellant respectfully requests a one (1) month extension of time for filing an Appeal Brief. The response period is presently set to expire on March 10, 2010, and if the extension is granted, the new response date will be April 10, 2010. A check in the amount of \$670.00 is enclosed for the Appeal Brief filing fee (\$540.00) and one-month extension fee (\$130.00).

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**Real Party in Interest**

The real party in interest is the assignee of this application, AVAYA, INC, a corporation having a place of business at 211 Mt. Airy Road, Basking Ridge, NJ 07920. The Assignment from the inventors to Nortel Networks Limited was recorded in the Patent and Trademark Office on December 13, 1999, at Reel 010457, Frame 0944, and upon information and belief and based on communications from Nortel Networks, this application was recently assigned from Nortel Networks Limited to Avaya, Inc.

**Related Appeals or Interferences**

There are no known appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this pending appeal.

**Status of Claims**

Claims 1-3, 5-12, 14-19, 21-25 and 27-54 are pending and rejected by the Office Action dated September 10, 2009. Claims 4, 13, 20 and 26 have been cancelled. Claims 1-3, 5-12, 14-19, 21-25 and 27-54 are presented for appeal. A complete and current listing of Claims 1-3, 5-12, 14-19, 21-25 and 27-54 is included in Appendix A.

**Status of Amendments after Final**

No amendments were submitted and refused entry after the Office Action dated September 10, 2009.

### **Summary of Claimed Subject Matter**

*The following summary refers to disclosed embodiments and their advantages but does not delimit any of the claimed inventions.*

#### **In General**

The present application is directed, generally to voice recognition, and more particularly, to analyzing voice information to determine call treatment.<sup>1</sup>

#### **Support for Independent Claims**

*Note that, per 37 C.F.R. § 41.37, only the independent claims are discussed in this section, as well as any claims including means-plus-function language that are argued separately below. In the arguments below, however, various dependent claims may also be discussed and distinguished from the prior art. The discussion of the claims is for illustrative purposes and is not intended to affect the scope of the claims.*

Claim 1 recites a method for processing a voice message.<sup>2</sup> The method includes storing one or more voice representations, wherein each voice representation corresponds to a word or phrase and is associated with a value.<sup>3</sup> The method also includes storing one or more actions.<sup>4</sup> The method further includes receiving a voice message.<sup>5</sup> The method includes receiving a

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<sup>1</sup> See Specification, page 1, lines 2-3.

<sup>2</sup> See Specification, page 5, lines 9-11.

<sup>3</sup> See Specification, Figure 3, 'database'; page 5, lines 24-25.

<sup>4</sup> See Specification, Figure 4, "'Actions" and message database'.

<sup>5</sup> See Specification, page 5, lines 11-13.



user-specified word or a user-specified phrase from a user, where the received user-specified word or phrase corresponding to a word or phrase has a corresponding stored voice representation.<sup>6</sup> The method also includes analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.<sup>7</sup> The method further includes performing one or more of the stored actions based on the final criteria measurement value if one or more of the stored voice representations are found to occur in the voice message.<sup>8</sup>

Claim 10 recites a method for analyzing voice information received from a person over a communications line.<sup>9</sup> The method includes storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a value.<sup>10</sup> The method also includes storing one or more actions.<sup>11</sup> The method further includes receiving voice information from a person over a communications line.<sup>12</sup> The method includes receiving a user-specified word or a user-specified phrase from a user, where the received user-specified word or phrase corresponding to a word or phrase has a corresponding stored voice

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<sup>6</sup> See Specification, page 10, lines 4-6; page 11, lines 18-20.

<sup>7</sup> See Specification, page 5, line 20, through page 6, line 6.

<sup>8</sup> See Specification, page 6, lines 7-12.

<sup>9</sup> See Specification, page 7, lines 28-30.

<sup>10</sup> See Specification, Figure 3, 'database'; page 5, lines 24-25.

<sup>11</sup> See Specification, Figure 4, "'Actions' and message database'.

<sup>12</sup> See Specification, page 7, lines 28-30.

representation.<sup>13</sup> The method also includes analyzing the voice information to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice information and to generate a final criteria measurement value associated with the voice information, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice information.<sup>14</sup> The method further includes performing one or more of the stored actions based on the final criteria measurement value if one or more of the stored voice representations are found to occur in the voice information.<sup>15</sup>

Claim 17 recites an apparatus for processing a voice message.<sup>16</sup> The apparatus includes a storage device for storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a criteria measurement value, and for storing one or more actions.<sup>17</sup> The apparatus also includes an interface for receiving from a user a user-specified word or a user-specified phrase.<sup>18</sup> The apparatus further includes a processor for receiving a voice message,<sup>19</sup> analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message,<sup>20</sup> and performing one or more of the stored actions based on the final criteria

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<sup>13</sup> See Specification, page 10, lines 4-6; page 11, lines 18-20.

<sup>14</sup> See Specification, page 8, lines 6-24.

<sup>15</sup> See Specification, page 8, lines 27-31.

<sup>16</sup> See Specification, page 10, lines 4-6; page 11, lines 1-2.

<sup>17</sup> See Specification, page 11, lines 2-6.

<sup>18</sup> See Specification, page 11, lines 6-7.

<sup>19</sup> See Specification, page 11, lines 1-2; page 5, lines 11-13.

<sup>20</sup> See Specification, page 11, lines 1-2; page 5, line 20, through page 6, line 6.

measurement value if one or more of the stored voice representations are found to occur in the voice message,<sup>21</sup> the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.<sup>22</sup>

Claim 23 recites an apparatus for analyzing voice information received from a person over a communications line.<sup>23</sup> The apparatus includes a storage device for storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a value, and for storing one or more actions.<sup>24</sup> The apparatus also includes an interface for receiving a user-specified word or a user-specified phrase.<sup>25</sup> The apparatus further includes a processor for receiving voice information from a person over a communications line,<sup>26</sup> analyzing the voice information to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice information received from the person and to generate a final criteria measurement value associated with the voice information,<sup>27</sup> and performing one or more of the stored actions based on the final criteria measurement value if the voice information is found to include one or more of the stored voice representations,<sup>28</sup> the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice information.<sup>29</sup>

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<sup>21</sup> See Specification, page 6, lines 7-12; page 11, lines 1-2 and 7-8.

<sup>22</sup> See Specification, page 11, lines 1-2; page 6, lines 7-12.

<sup>23</sup> See Specification, page 11, lines 10-11.

<sup>24</sup> See Specification, page 11, lines 13-15 and 2-6.

<sup>25</sup> See Specification, page 11, lines 6-7 and 18-20.

<sup>26</sup> See Specification, page 11, lines 11-13.

<sup>27</sup> See Specification, page 11, lines 15-17; page 8, lines 6-24.

<sup>28</sup> See Specification, page 8, lines 27-31; page 11, lines 17-18.

<sup>29</sup> See Specification, page 8, lines 6-24.

Claim 30 recites a method for processing a voice message.<sup>30</sup> The method includes storing one or more actions.<sup>31</sup> The method also includes receiving a voice message<sup>32</sup> and analyzing the voice message to determine whether the voice message exhibits a predetermined pattern of speech<sup>33</sup> that represents at least one of a tone of speech in the voice message and a frequency of the speech in the voice message.<sup>34</sup> The method further includes performing one or more of the stored actions, if the predetermined pattern of speech is found to occur in the voice message.<sup>35</sup>

Claim 37 recites a method for analyzing voice information received from a person over a communications line.<sup>36</sup> The method includes storing one or more actions.<sup>37</sup> The method also includes receiving voice information from a person over a communications line.<sup>38</sup> The method further includes analyzing the voice information from the person to determine if the voice information exhibits a predetermined pattern of speech<sup>39</sup> that represents at least one of a tone of speech in the voice information and a frequency of the speech in the voice information.<sup>40</sup> The method still further includes performing one or more of the stored actions if the voice information is found to exhibit the predetermined pattern of speech.<sup>41</sup>

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<sup>30</sup> See Specification, page 5, lines 9-11.

<sup>31</sup> See Specification, Figure 4, "'Actions" and message database'.

<sup>32</sup> See Specification, page 5, lines 11-13.

<sup>33</sup> See Specification, page 2, lines 11-16.

<sup>34</sup> See Specification, page 4, lines 18-20; page 7, lines 7-11; page 9, lines 29-31.

<sup>35</sup> See Specification, page 7, lines 11-19.

<sup>36</sup> See Specification, page 7, lines 28-30.

<sup>37</sup> See Specification, Figure 4, "'Actions" and message database'.

<sup>38</sup> See Specification, page 7, lines 28-30.

<sup>39</sup> See Specification, page 10, lines 29-30; page 11, lines 15-17.

<sup>40</sup> See Specification, page 4, lines 18-20; page 7, lines 7-11; page 9, lines 29-31.

<sup>41</sup> See Specification, page 10, lines 25-29.

Claim 41 recites an apparatus for processing a voice message.<sup>42</sup> The apparatus includes a storage device and a processor.<sup>43</sup> The storage device stores information regarding a predetermined pattern of speech and stores one or more actions.<sup>44</sup> The predetermined pattern of speech represents at least one of a tone of speech in the voice message and a frequency of the speech in the voice message.<sup>45</sup> The processor receives a voice message,<sup>46</sup> analyzes the voice message to determine if the voice message exhibits the predetermined pattern of speech,<sup>47</sup> and performs one or more of the stored actions if the voice message is found to exhibit the predetermined pattern of speech.<sup>48</sup>

Claim 44 recites an apparatus for analyzing voice information received from a person over a communications line.<sup>49</sup> The apparatus includes a storage device and a processor.<sup>50</sup> The storage device stores information regarding a predetermined pattern of speech and stores one or more actions.<sup>51</sup> The predetermined pattern of speech represents at least one of a tone of speech in the voice information and a frequency of the speech in the voice information.<sup>52</sup> The processor receives voice information from a person over a communications line,<sup>53</sup> analyzes the voice information to determine if the voice information exhibits the predetermined pattern of speech,<sup>54</sup>

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<sup>42</sup> See Specification, page 10, lines 4-6; page 11, lines 1-2.

<sup>43</sup> See Specification, page 10, lines 6-9.

<sup>44</sup> See Specification, page 11, lines 2-6.

<sup>45</sup> See Specification, page 4, lines 18-20; page 7, lines 7-11; page 9, lines 29-31.

<sup>46</sup> See Specification, page 11, lines 1-2; page 5, lines 11-13.

<sup>47</sup> See Specification, page 11, lines 1-2; page 10, lines 29-30.

<sup>48</sup> See Specification, page 11, lines 7-8.

<sup>49</sup> See Specification, page 11, lines 10-11.

<sup>50</sup> See Specification, page 11, lines 11-13.

<sup>51</sup> See Specification, page 11, lines 2-6 and 13-15.

<sup>52</sup> See Specification, page 4, lines 18-20; page 7, lines 7-11; page 9, lines 29-31.

<sup>53</sup> See Specification, page 7, lines 28-30; page 11, line 15.

<sup>54</sup> See Specification, page 10, lines 29-30; page 11, lines 15-17.

and performs one or more of the stored actions if the voice information is found to exhibit the predetermined pattern of speech.<sup>55</sup>

Claim 47 recites an apparatus for processing a voice message.<sup>56</sup> The apparatus includes means for storing one or more voice representations and one or more actions, where each voice representation corresponds to a word or phrase and is associated with a value.<sup>57</sup> The apparatus also includes means for receiving a voice message.<sup>58</sup> The apparatus further includes means for receiving a user-specified word or a user-specified phrase from a user.<sup>59</sup> The received user-specified word or phrase corresponds to a word or phrase having a corresponding stored voice representation.<sup>60</sup> The apparatus still further includes means for analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message,<sup>61</sup> and performing one or more of the stored actions based on the final criteria measurement value, if one or more of the stored voice representations are found to occur in the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.<sup>62</sup>

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<sup>55</sup> See Specification, page 11, lines 17-18.

<sup>56</sup> See Specification, page 10, lines 4-6; page 11, lines 1-2.

<sup>57</sup> See Specification, page 11, lines 2-6.

<sup>58</sup> See Specification, page 11, lines 1-2; page 5, lines 11-13.

<sup>59</sup> See Specification, page 11, lines 6-7 and 18-20.

<sup>60</sup> See Specification, page 10, lines 4-6; page 11, lines 18-20.

<sup>61</sup> See Specification, page 11, lines 1-2; page 5, line 20, through page 6, line 6.

<sup>62</sup> See Specification, page 11, lines 7-8.

Claim 48 recites an apparatus for analyzing voice information received from a person over a communications line.<sup>63</sup> The apparatus includes means for storing one or more voice representations and one or more actions, where each voice representation corresponds to a word or phrase and is associated with a value.<sup>64</sup> The apparatus also includes means for receiving voice information from a person over a communications line.<sup>65</sup> The apparatus further includes means for receiving a user-specified word or a user-specified phrase from a user, where the received user-specified word or phrase corresponds to a word or phrase having a corresponding stored voice representation.<sup>66</sup> The apparatus still further includes means for analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message,<sup>67</sup> and performing one or more of the stored actions based on the final criteria measurement value, if one or more of the stored voice representations are found to occur in the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.<sup>68</sup>

Claim 49 recites an apparatus for processing a voice message.<sup>69</sup> The apparatus includes means for storing one or more actions.<sup>70</sup> The apparatus also includes means for receiving a voice

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<sup>63</sup> See Specification, page 11, lines 10-11.

<sup>64</sup> See Specification, page 11, lines 13-15 and 2-6.

<sup>65</sup> See Specification, page 11, lines 11-13.

<sup>66</sup> See Specification, page 11, lines 6-7 and 18-20.

<sup>67</sup> See Specification, page 11, lines 15-17.

<sup>68</sup> See Specification, page 11, lines 17-18.

<sup>69</sup> See Specification, page 10, lines 4-6.

<sup>70</sup> See Specification, page 11, lines 2-6.

message.<sup>71</sup> The apparatus further includes means for analyzing the voice message to determine if the voice message exhibits a predetermined pattern of speech, and performing one or more of the stored actions,<sup>72</sup> if the predetermined pattern of speech is found to occur in the voice message, the predetermined pattern of speech representing at least one of a tone of speech in the voice message and a frequency of the speech in the voice message.<sup>73</sup>

Claim 50 recites an apparatus for analyzing voice information received from a person over a communications line.<sup>74</sup> The apparatus includes means for storing one or more actions.<sup>75</sup> The apparatus also includes means for receiving voice information from a person over a communications line.<sup>76</sup> The apparatus further includes means for analyzing the voice information from the person to determine if the voice information exhibits a predetermined pattern of speech,<sup>77</sup> and performing one or more of the stored actions if the voice information is found to exhibit the predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice information and a frequency of the speech in the voice information.<sup>78</sup>

Claim 51 recites a computer readable medium whose contents cause a computer to perform a procedure for processing a voice message.<sup>79</sup> The procedure includes receiving a voice

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<sup>71</sup> See Specification, page 11, lines 1-2.

<sup>72</sup> See Specification, page 11, lines 7-8.

<sup>73</sup> See Specification, page 11, lines 1-2.

<sup>74</sup> See Specification, page 11, lines 10-11.

<sup>75</sup> See Specification, page 11, lines 13-15 and 2-6.

<sup>76</sup> See Specification, page 11, lines 11-13.

<sup>77</sup> See Specification, page 11, lines 15-17.

<sup>78</sup> See Specification, page 11, lines 17-18.

<sup>79</sup> See Specification, page 11, lines 2-6.



message.<sup>80</sup> The procedure also includes receiving a user-specified word or a user-specified phrase from a user, where the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation.<sup>81</sup> The procedure further includes analyzing the voice message to determine if one or more stored voice representations corresponding to the received user-specified word or phrase occur in the voice message, wherein each voice representation corresponds to a word or phrase and is associated with a value, wherein analyzing the voice message comprises generating a final criteria measurement value associated with the voice message.<sup>82</sup> The procedure still further includes performing one or more stored actions based on the final criteria measurement value if one or more of the stored voice representations are determined to occur in the voice message.<sup>83</sup>

Claim 52 recites a computer readable medium whose contents cause a computer to perform a procedure for processing voice information.<sup>84</sup> The procedure includes receiving voice information from a person over a communications line.<sup>85</sup> The procedure also includes receiving a user-specified word or a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation.<sup>86</sup> The procedure further includes analyzing the voice information from the person to determine if one or more stored voice representations corresponding to the received user-specified word or phrase occur in the voice information, wherein each voice representation corresponds to a word

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<sup>80</sup> See Specification, page 5, lines 11-13.

<sup>81</sup> See Specification, page 10, lines 4-6; page 11, lines 18-20.

<sup>82</sup> See Specification, page 5, line 20, through page 6, line 6.

<sup>83</sup> See Specification, page 6, lines 7-12.

<sup>84</sup> See Specification, page 11, lines 13-15.

<sup>85</sup> See Specification, page 7, lines 28-30.

<sup>86</sup> See Specification, page 10, lines 4-6; page 11, lines 18-20.

or phrase and is associated with a value, wherein analyzing the voice information comprises generating a final criteria measurement value associated with the voice information.<sup>87</sup> The procedure still further includes performing one or more stored actions based on the final criteria measurement value if one or more of the stored voice representations are determined to occur in the voice information.<sup>88</sup>

Claim 53 recites a computer readable medium whose contents cause a computer to perform a procedure for processing a voice message.<sup>89</sup> The procedure includes receiving a voice message.<sup>90</sup> The procedure also includes analyzing the voice message to determine if the voice message exhibits a predetermined pattern of speech<sup>91</sup> that represents at least one of a tone of speech in the voice message and a frequency of the speech in the voice message.<sup>92</sup> The procedure further includes performing one or more stored actions, if the predetermined pattern of speech is determined to occur in the voice message.<sup>93</sup>

Claim 54 recites a computer readable medium whose content cause a computer to perform a procedure for processing voice information.<sup>94</sup> The procedure includes receiving voice information from a person over a communications line.<sup>95</sup> The procedure also includes analyzing the voice information from the person to determine if the voice information exhibits a

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<sup>87</sup> See Specification, page 8, lines 6-24.

<sup>88</sup> See Specification, page 8, lines 27-31.

<sup>89</sup> See Specification, page 11, lines 2-6.

<sup>90</sup> See Specification, page 5, lines 11-13.

<sup>91</sup> See Specification, page 2, lines 11-16.

<sup>92</sup> See Specification, page 4, lines 18-20; page 7, lines 7-11; page 9, lines 29-31.

<sup>93</sup> See Specification, page 7, lines 11-19.

<sup>94</sup> See Specification, page 11, lines 13-15.

<sup>95</sup> See Specification, page 7, lines 28-30.

predetermined pattern of speech<sup>96</sup> that represents at least one of a tone of speech in the voice information and a frequency of the speech in the voice information.<sup>97</sup> The procedure further includes performing one or more stored actions if the voice information is determined to exhibit the predetermined pattern of speech.<sup>98</sup>

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<sup>96</sup> See Specification, page 10, lines 29-30; page 11, lines 15-17.

<sup>97</sup> See Specification, page 4, lines 18-20; page 7, lines 7-11; page 9, lines 29-31.

<sup>98</sup> See Specification, page 10, lines 25-29.

**Grounds of Rejection to be Reviewed on Appeal**

1. Claims 1, 5-10, 14-17, 21-23, 27-29, 47, 48 and 51-52 stand rejected as unpatentable under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,625,748 to *McDonough et al.* (hereinafter “McDonough”) in view of U.S. Patent No. 6,327,343 to *Epstein et al.* (hereinafter “Epstein”).

2. Claims 2, 3, 11, 12, 18, 19, 24, 25, 31, 33-34, 38, 42, 45 and 53-54 stand rejected as unpatentable under 35 U.S.C. 103(a) as being unpatentable over McDonough and Epstein in view of Sadaoki Furui, "Digital Speech Processing, Synthesis, and Recognition," Marcel Dekker, Inc., New York, 1989, pp. 225-289 (hereinafter “Furui”).

3. Claims 30, 32, 35-37, 39-41, 43-44, 46, and 49-50 stand rejected as unpatentable under 35 U.S.C. 103(a) as being unpatentable over McDonough and Epstein in view of Furui.

## Arguments

### Legal Standards

#### Rejections under 35 U.S.C. §103(a)

For rejections under 35 U.S.C. §103, MPEP § 2142 specifies that:

The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

MPEP § 2142 further explains that:

To reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical “person of ordinary skill in the art” when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention “as a whole” would have been obvious at that time to that person. Knowledge of applicant’s disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the “differences,” conduct the search and evaluate the “subject matter as a whole” of the invention. The tendency to resort to “hindsight” based upon applicant’s disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art

MPEP § 2143.01 specifies that:

Obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so.

### **The McDonough Reference**

McDonough recites a system that classifies communications into different topics.<sup>99</sup> Topics are described by model parameters, which are selected subsets of events and the parameter values for the individual event frequency distributions.<sup>100</sup> The system includes a speech event frequency detector.<sup>101</sup> The speech event frequency detector identifies the frequency at which various words or phrases appear in a communication.<sup>102</sup> The communication is then classified based on the frequency that the words and phrases are used.<sup>103</sup> McDonough simply describes classifying communications based on the frequency at which words and phrases appear in the communications.

### **The Epstein Reference**

Epstein describes a programmable automatic call and data transfer processing system.<sup>104</sup> Calls in audio format may be processed to recognize a caller's identity.<sup>105</sup> Additionally, the call may be converted into readable text in order to determine the content and/or subject matter of the call.<sup>106</sup> A user can program the system by inputting text, such as keywords or topics, to be searched for in the text version of a call.<sup>107</sup>

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<sup>99</sup> See McDonough, col. 4, lines 27-34.

<sup>100</sup> See McDonough, col. 6, lines 40-42.

<sup>101</sup> See McDonough, col. 5, lines 45-48.

<sup>102</sup> See McDonough, col. 6, lines 23-29.

<sup>103</sup> See McDonough, col. 5, lines 62-64.

<sup>104</sup> See Epstein, Abstract.

<sup>105</sup> See Epstein, col. 5, lines 9-15.

<sup>106</sup> See Epstein, col. 5, lines 15-18.

<sup>107</sup> See Epstein, col. 12, lines

**Ground of Rejection #1**

Claims 1, 5-10, 14-17, 21-23, 27-29, 47, 48 and 51-52 stand rejected as unpatentable under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,625,748 to *McDonough et al.* (hereinafter “McDonough”) in view of U.S. Patent No. 6,327,343 to *Epstein et al.* (hereinafter “Epstein”).

A. Claims 1, 7-9, 10, 15, 16, 23, 27-29, 47, 48, 51 and 52

Claim 1 recites a method for processing a voice message, the method comprising:

storing one or more voice representations, wherein each voice representation corresponds to a word or phrase and is associated with a value;

storing one or more actions;

receiving a voice message;

receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation;

analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message; and

performing one or more of the stored actions based on the final criteria measurement value if one or more of the stored voice representations are found to occur in the voice message.

Claim 10 recites a method for analyzing voice information received from a person over a communications line, the method comprising:

storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a value;

storing one or more actions;

receiving voice information from a person over a communications line;

receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation;

analyzing the voice information from the person to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice information received from the person and to generate a final criteria measurement value associated with the voice information, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice information; and

performing one or more of the stored actions based on the final criteria measurement value if the voice information is found to include one or more of the stored voice representations.

Claim 23 recites an apparatus for analyzing voice information received from a person over a communications line, the apparatus comprising:

a storage device for storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a value, and for storing one or more actions;

an interface for receiving a one of: a user-specified word and a user-specified phrase; and

a processor for receiving voice information from a person over a communications line, analyzing the voice information to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice information received from the person and to generate a final criteria measurement value associated with the voice information, and performing one or more of the stored actions based on the final criteria measurement value if the voice information is found to include one or more of the stored voice representations, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice information.

Claim 47 recites an apparatus for processing a voice message, the apparatus comprising:

means for storing one or more voice representations, wherein each voice representation corresponds to a word or phrase and is associated with a value, and for storing one or more actions;

means for receiving a voice message;

means for receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation; and



means for analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message, and performing one or more of the stored actions based on the final criteria measurement value, if one or more of the stored voice representations are found to occur in the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.

Claim 48 recites an apparatus for analyzing voice information received from a person over a communications line, the apparatus comprising:

means for storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a value, and for storing one or more actions;

means for receiving voice information from a person over a communications line;

means for receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation; and

means for analyzing the voice information from the person to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice information received from the person and to generate a final criteria measurement value associated with the voice information, and performing one or more of the stored actions based on the final criteria measurement value if the voice information is found to include one or more of the voice representations, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice information.

Claim 51 recites a computer readable medium whose contents cause a computer to perform a procedure for processing a voice message comprising:

receiving a voice message;

receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation;

analyzing the voice message to determine if one or more stored voice representations corresponding to the received user-specified word or phrase occur in the voice message, wherein each voice representation corresponds to a word or phrase

and is associated with a value, wherein analyzing the voice message comprises generating a final criteria measurement value associated with the voice message; and performing one or more stored actions based on the final criteria measurement value if one or more of the stored voice representations are determined to occur in the voice message.

Claim 52 recites a computer readable medium whose contents cause a computer to perform a procedure for processing voice information comprising:

- receiving voice information from a person over a communications line;
- receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation;
- analyzing the voice information from the person to determine if one or more stored voice representations corresponding to the received user-specified word or phrase occur in the voice information, wherein each voice representation corresponds to a word or phrase and is associated with a value, wherein analyzing the voice information comprises generating a final criteria measurement value associated with the voice information; and
- performing one or more stored actions based on the final criteria measurement value if one or more of the stored voice representations are determined to occur in the voice information.

When applying 35 U.S.C. 103, the claimed invention must be considered as a whole. *See MPEP § 2141(II)*. In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *MPEP § 2141.02(I), citing Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983)*. Indeed, The Supreme Court has recently held,

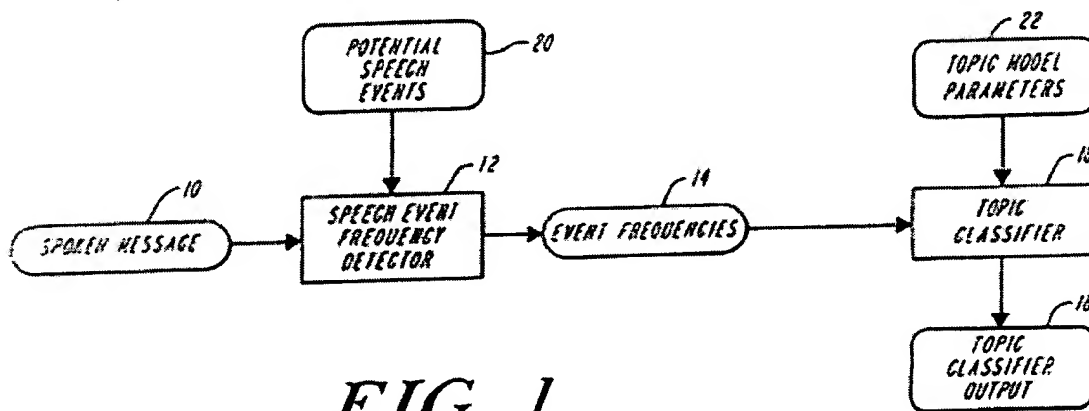
[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would

have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727 (U.S.,2007).

The Appellant respectfully submits that the rejection of Claims 1, 7-9, 10, 15, 16, 23 and 27-29 over the combination of McDonough and Epstein is improper because it addresses individual differences between the cited references and the claims, rather than considering the claims as a whole.

McDonough teaches values associated with topics, not speech events

McDonough describes a system that scans a voice input for the occurrence of speech events, generates a data structure representing the frequency with which each observed speech event occurred, then compares that suite of event frequencies against topic model parameters to identify a most probable topic, if any, for the voice input.<sup>108</sup>



**FIG. 1**

<sup>108</sup> See McDonough, Fig. 1; col. 5, line 42, through col. 6, line 3.

Where Claim 1 recites “storing one or more voice representations, wherein each voice representation corresponds to a word or phrase and is associated with a value,” Examiner Godbold points to McDonough’s potential speech events 20 as describing “storing one or more voice representations, wherein each voice representation corresponds to a word or phrase” and to McDonough’s topic model parameters 22 as describing “a value” associated with the speech events. McDonough’s topic model parameters are parameters associated with topics that indicate, for each topic, a selected subset of speech events and a frequency distribution for each event in the subset. Any individual speech event may appear in the selected subset of multiple topics. Some speech events may not appear in the selected subset for any topic. Thus, a person of skill in the art would understand McDonough as teaching speech event frequency distributions as a value associated with a topic, not with a speech event, and does not teach storing a voice representation corresponding to a word or phrase and associated with a value.

McDonough teaches classifying topics based upon  
fewer than all the speech events in a voice input

When classifying the suite of event frequencies for a voice input, McDonough’s topic classifier compares the suite to all possible topics and identifies the most likely topic if any. Not all speech events present in the voice input are necessarily included in the selected subset of speech events for the topics considered by the topic classifier.

Claim 1, in contrast, recites generating a “final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice

message.” That is, Claim 1 recites a value based on all voice representations occurring in a voice message.

McDonough explicitly teaches away from considering all speech events in the voice input and teaches, instead, classifying a probable topic of a voice input based upon only some of the speech events in the voice input.<sup>109</sup> McDonough teaches restricting the selected subset of speech events in a topic model to fewer than all the speech events that may occur in a voice input related to that topic. Therefore, a person of skill in the art would not understand McDonough to teach generating a “final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.”

McDonough teaches classifying topics based upon  
a plurality of different event frequency distributions, rather than a single value

When classifying the suite of event frequencies for a voice input, McDonough’s topic classifier compares the suite to all possible topics and identifies its most likely topic, if any. For any individual speech event, its frequency of occurrence in the voice input under review is compared to its topic model frequency distribution for each topic in whose selected subset it appears.

Claim 1, in contrast, recites generating a “final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.” That is, Claim 1 recites a value associated with each voice representation and a final criteria generated based upon the value associated with each voice representation.

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<sup>109</sup> See McDonough, col. 9, line 66, through col. 10, line 8.

The speech events occurring in a voice input to McDonough's system may be part of more than one topic model and may have a different frequency distribution in each topic model. Thus, McDonough's classification of a topic for a voice input is based upon comparing voice input speech event frequencies against topic model frequency distributions for a plurality of topics. As such, a person of skill in the art would not understand McDonough as teaching generating a value based on "the value associated with each determined stored voice representation occurring in the voice message."

McDonough, as modified by Epstein, does not teach receiving a word or phrase to analyze a voice message for corresponding voice representations

Examiner Godbold cites column 12, lines 11-14, in asserting that McDonough describes a user selecting a user specified word or phrase, where the selected word or phrase has a corresponding stored voice representation.<sup>110</sup> Taken in context, the cited passage actually teaches describing generic phrases using a formalized grammar.<sup>111</sup> Speech events are selected and relationships amongst them specified in a formal grammar in order to describe generic phrases. The cited passage does not describe adding speech events to the database of potential speech events.

Acknowledging that McDonough does not teach receiving the selected word or phrase from the user, Examiner Godbold argues that Epstein's description of entering keywords for comparison to symbolic language or text would lead a person of skill in the art to enable a user to

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<sup>110</sup> See Office Action mailed September 10, 2009, page 4, lines 12-15.

<sup>111</sup> See McDonough, Fig. 5; col. 12, lines 11-27.

enter words or phrases having a stored voice representation into McDonough's database of potential speech events.<sup>112</sup> That is, the entered words are compared to transcribed symbolic language or text. Examiner Godbold asserts that it would have been obvious to combine the input means of Epstein as "a way of performing the selection of McDonough in order to allow the user to select the words without having to user [sic] cumbersome lists or menus."<sup>113</sup>

Thus, Examiner Godbold appears to be suggesting that the person of skill in the art would employ Epstein's technique of entering a word in symbolic language or text to simplify McDonough's process of selecting already-stored words for use in specifying a generic phrase using a formal grammar. Even if such a combination were made, it would not result in the recited method of Claim 1.

### Summary

Appellant respectfully submits that McDonough does not teach the limitations of Claim 1 of storing a voice representation corresponding to a word or phrase and associated with a value; generating a value based on a value associated with each determined stored voice representation occurring in a voice message; and generating that value based on that same value associated with each determined stored voice representation. Instead McDonough teaches speech event frequency distributions as a value associated with a topic, not with a speech event; restricting a subset of speech events looked for to predict a topic to fewer than all the speech events that may be in a voice input; and comparing voice input speech event frequencies to a plurality of topic

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<sup>112</sup> See Office Action mailed September 10, 2009, page 5, lines 13-20.

<sup>113</sup> See Office Action mailed September 10, 2009, page 5, lines 17-20.

model frequency distributions for a plurality of topics. Furthermore, the rejection of Claim 1 addresses individual differences between the cited references and the claim, rather than considering the claim as a whole.

As such, the cited references fail to describe all the elements of Claim 1 and a *prima facie* case of obviousness has not been shown. For at least these reasons, the rejection of Claim 1 pursuant to 35 U.S.C. § 103(a) is improper. Claims 10, 23, 47, 48, 52 and 53 recite limitations analogous to the novel and non-obvious limitations emphasized in traversing the rejection of Claim 1 and, therefore the rejection of Claims 10, 23, 47, 48, 52 and 53 pursuant to 35 U.S.C. § 103(a) also is improper. Claims 7-9, 15, 16 and 27-29 are allowable as depending from allowable base claims. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claims 1, 7-10, 15, 16, 23 and 27-29, 47, 48, 52 and 53 in the application.

B. Claims 5 and 14

Claim 5 recites the method of Claim 1. further comprising:

the user specifying one or more actions, wherein the actions are to be performed in the event one or more of the voice representations are found in the voice message;  
storing the user specified one or more actions; and  
wherein in performing one or more of the stored actions, the stored actions include the user specified actions.

Claim 14 recites the method of Claim 10, further comprising:

the user specifying one or more actions, wherein the actions are to be performed in the event one or more of the stored voice representations are found in the voice information;  
storing the user specified actions; and



wherein in performing one or more of the stored actions, the stored actions include the user specified actions.

Claim 5 depends from Claim 1 and Claim 14 depends from Claim 10 and each includes all the limitations of its respective base claim. As such, the arguments for the patentability of Claims 1 and 10 also apply to Claims 5 and 14 and are incorporated by reference.

In rejecting Claims 5 and 14, Examiner Godbold asserts that McDonough teaches a user “specifying actions to be performed if the voice representation is found in the voice message.”<sup>114</sup> Appellant respectfully submits that the rejection does not address the actual language of the claims. Claims 5 and 14 recite “the user specifying one or more actions,” not “specifying actions to be performed.”

The passage of McDonough relied upon by Examiner Godbold does not describe a user specifying actions.<sup>115</sup> Instead McDonough describes a system in which “it is assumed that all possible actions are known,” while “the system has the capacity to interactively learn new vocabulary words” that a user may associate with a desired action.<sup>116</sup> That is, all possible actions are already specified and stored in the system, new vocabulary words can be learned, and a user can associate the new words with an existing action. Thus, McDonough does not describe steps of (i) a user specifying one or more actions, and (ii) storing the user specified actions.

As such, the cited references fail to describe all the elements of Claims 5 and 14 and a *prima facie* case of obviousness has not been shown. For at least these reasons, the rejection of Claims 5 and 14 pursuant to 35 U.S.C. § 103(a) is improper. Appellants respectfully request that

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<sup>114</sup> See Office Action mailed September 10, 2009, page 6, lines 16-17.

<sup>115</sup> See McDonough, col. 2, lines 1-24.

<sup>116</sup> *Ibid.* (Emphasis added).

the Board of Appeals reverse the decision of the Examiner rejecting Claims 5 and 14 in the application.

C. Claim 6

Claim 6 recites the method of Claim 1, wherein the stored one or more actions include marking the message as urgent.

Claim 6 depends from Claim 1 and includes all the limitations of its base claim. As such, the arguments for the patentability of Claim 1 also apply to Claim 6 and are incorporated by reference.

In rejecting Claim 6, Examiner Godbold cited column 17, line 40, as describing “marking the message as urgent.” Taken in context, the cited passage actually describes “adding mood stamps or urgency/confidentiality stamps in a header in one of said facsimile and e-mail.”<sup>117</sup>

Epstein further explains that:

[E]-mail messages (and other messages created by application specific software such as LOTUS NOTES) may be processed in accordance with mood stamps, i.e., informational fields provided by certain mailing programs such as LOTUS NOTES which allow the sender to indicate the nature of the message such as the confidentiality or urgency of the message.<sup>118</sup>

Epstein describes a system that handles voice calls and data calls separately.<sup>119</sup> Voice calls are analyzed for caller identity and/or subject matter and processed accordingly.<sup>120</sup> Nowhere in the

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<sup>117</sup> Epstein, col. 17, lines 40-42.

<sup>118</sup> Epstein, col. 2, lines 30-35.

<sup>119</sup> See Epstein, Figs. 3A and 3B; col. 6, lines 56-61

<sup>120</sup> See Epstein, Fig. 3A.

description of handling a voice call does Epstein describe storing urgency information relating to the call, as is described for facsimile and e-mail messages.

As such, the cited references fail to describe all the elements of Claim 6 and a *prima facie* case of obviousness has not been shown. For at least these reasons, the rejection of Claim 6 pursuant to 35 U.S.C. § 103(a) is improper. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claim 6 in the application.

D. Claims 17, 21 and 22

Claim 17 recites an apparatus for processing a voice message, the apparatus comprising:

a storage device for storing one or more voice representations where each voice representation corresponds to a word or phrase and is associated with a criteria measurement value, and for storing one or more actions;

an interface for receiving from a user a one of: a user-specified word and a user-specified phrase; and

a processor for receiving a voice message, analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message, and performing one or more of the stored actions based on the final criteria measurement value if one or more of the stored voice representations are found to occur in the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.

That is, Claim 17 recites (i) a storage device for storing voice representations associated with a criteria measurement value and (ii) a processor for analyzing a voice message (a) to determine whether stored voice representations corresponding to a received user-specified word or phrase occur in the voice message and (b) to generate a final criteria measurement based on a stored

value associated with each determined stored voice representation occurring in the voice message.

The Appellant respectfully submits that the rejection of Claims 17, 21 and 22 over the combination of McDonough and Epstein is improper because it addresses individual differences between the cited references and the claim, rather than considering the claim as a whole.

The Hidden Markov Models of McDonough's word spotter do not describe  
generating a measurement based on voice representations  
that have been determined to occur in a voice message

Examiner Godbold asserts that McDonough teaches generating a final criteria measurement value associated with a voice message when it describes Hidden Markov Models (HMMs) that sum confidence scores while spotting words and phrases.<sup>121</sup> The Appellant notes that this is contrary to the claim language. Claim 17 recites first determining whether stored voice representations occur in a voice message and then generating a final criteria measurement based on any such voice representations that were determined to occur. Summing confidence scores while spotting words and phrases cannot reasonably be held to teach generating a measurement based on voice representations that have already been determined to occur.

The confidence scores of McDonough's Hidden Markov Models are not determined by  
the probabilistic topic model parameter values of the topic classifier

Examiner Godbold then provides a conflicting assertion that McDonough teaches the claimed final criteria measurement being based on the stored value associated with each

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<sup>121</sup> See Office Action mailed September 10, 2009, page 13, lines 17-18.

determined stored voice representation in its description of probabilistic topic model parameter values and a topic classifier that uses those model values to predict a topic associated with a voice input. The Examiner includes the conclusion: “Therefore it is inherent that the confidence scores [from the HMMs] will be determined in part by this [sic] probabilistic parameters [from the topic model parameter values].”<sup>122</sup>

This is not consistent with the description of the topic discriminator system of McDonough. The speech event frequency detector 12 and topic classifier 16 are separate elements of McDonough’s topic discriminator.<sup>123</sup> Where the event frequency detector is implemented as HMMs, its confidence scores are not determined in any way by the probabilistic topic model parameter values of the topic classifier.

McDonough teaches classifying topics based upon  
fewer than all the speech events in a voice input

When classifying the suite of event frequencies for a voice input, McDonough’s topic classifier compares the suite to all possible topics and identifies the most likely topic if any. Not all speech events present in the voice input are necessarily included in the selected subset of speech events for the topics considered by the topic classifier.

Claim 17, in contrast, recites generating a “final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice

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<sup>122</sup> See Office Action mailed September 10, 2009, page 14, lines 1-2.

<sup>123</sup> See McDonough Fig. 1; col. 5, line 42, through col. 6, line 3.

message.” That is, Claim 17 recites a value based on all voice representations occurring in a voice message.

McDonough explicitly teaches away from considering all speech events in the voice input and teaches, instead, classifying a probable topic of a voice input based upon only some of the speech events in the voice input.<sup>124</sup> McDonough teaches restricting the selected subset of speech events in a topic model to fewer than all the speech events that may occur in a voice input related to that topic. Therefore, a person of skill in the art would not understand McDonough to teach generating a “final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.”

McDonough teaches classifying topics based upon  
a plurality of different event frequency distributions, rather than a single value

When classifying the suite of event frequencies for a voice input, McDonough’s topic classifier compares the suite to all possible topics and identifies its most likely topic, if any. For any individual speech event, its frequency of occurrence in the voice input under review is compared to its topic model frequency distribution for each topic in whose selected subset it appears.

Claim 17, in contrast, recites generating a “final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.” That is, Claim 17 recites a criteria measurement value associated with each voice

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<sup>124</sup> See McDonough, col. 9, line 66, through col. 10, line 8.

representation and a criteria measurement final criteria generated based upon the criteria measurement value associated with each voice representation.

The speech events occurring in a voice input to McDonough's system may be part of more than one topic model and may have a different frequency distribution in each topic model. Thus, McDonough's classification of a topic for a voice input is based upon comparing voice input speech event frequencies against topic model frequency distributions for a plurality of topics. As such, a person of skill in the art would not understand McDonough as teaching generating a value based on "the value associated with each determined stored voice representation occurring in the voice message."

McDonough, as modified by Epstein, does not teach receiving a word or phrase to analyze a voice message for corresponding voice representations

Examiner Godbold cites column 12, line 13, in asserting that McDonough describes a user selecting a user specified word or phrase.<sup>125</sup> Taken in context, the cited passage actually teaches describing generic phrases using a formalized grammar.<sup>126</sup> Speech events are selected and relationships amongst them specified in a formal grammar in order to describe generic phrases. The cited passage does not describe adding speech events to the database of potential speech events.

Acknowledging that McDonough does not teach receiving the selected word or phrase from the user, Examiner Godbold argues that Epstein's description of entering keywords for

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<sup>125</sup> See Office Action mailed September 10, 2009, page 13, lines 8-11.

<sup>126</sup> See McDonough, Fig. 5; col. 12, lines 11-27.

comparison to symbolic language or text would lead a person of skill in the art to enable a user to enter words or phrases having a stored voice representation into McDonough's database of potential speech events.<sup>127</sup> That is, the entered words are compared to transcribed symbolic language or text. Examiner Godbold asserts that it would have been obvious to combine the input means of Epstein as "a way of performing the selection of McDonough in order to allow the user to select the words without having to user cumbersome lists or menus."<sup>128</sup>

Thus, Examiner Godbold appears to be suggesting that the person of skill in the art would employ Epstein's technique of entering a word in symbolic language or text to simplify McDonough's process of selecting already-stored words for use in specifying a generic phrase using a formal grammar. Even if such a combination were made, it would not result in the recited method of Claim 17.

### Summary

Appellant respectfully submits that the Hidden Markov Models of McDonough's word spotter do not describe generating a measurement based on voice representations that have been determined to occur in a voice message, and the confidence scores of McDonough's Hidden Markov Models are not determined by the probabilistic topic model parameter values of the topic classifier. Furthermore, McDonough does not teach the limitations of Claim 17 of generating a value based on a value associated with each determined stored voice representation occurring in a voice message, and generating that value based on that same value associated with each

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<sup>127</sup> See Office Action mailed September 10, 2009, page 14, line 17, through page 15, line 2.

<sup>128</sup> See Office Action mailed September 10, 2009, page 5, lines 17-20.



determined stored voice representation. Instead McDonough teaches restricting a subset of speech events looked for to predict a topic to fewer than all the speech events that may be in a voice input, and comparing voice input speech event frequencies to a plurality of topic model frequency distributions for a plurality of topics. Furthermore, the rejection of Claim 17 addresses individual differences between the cited references and the claim, rather than considering the claim as a whole.

As such, the cited references fail to describe all the elements of Claim 17 and a *prima facie* case of obviousness has not been shown. For at least these reasons, the rejection of Claim 17 pursuant to 35 U.S.C. § 103(a) is improper. Claims 21 and 22 are allowable as depending from allowable base claims. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claims 17, 21 and 22 in the application.

**Ground of Rejection #2**

Claims 2, 3, 11, 12, 18, 19, 24, 25, 31, 33-34, 38, 42, 45 and 53-54 stand rejected as unpatentable under 35 U.S.C. 103(a) as being unpatentable over McDonough and Epstein in view of Sadaoki Furui, "Digital Speech Processing, Synthesis, and Recognition," Marcel Dekker, Inc., New York, 1989, pp. 225-289 (hereinafter "Furui").

**The Furui Reference**

Furui describes techniques of speech recognition, expressly limited solely to the recognition of linguistic information; no description is provided of recognizing non-linguistic information in speech.<sup>129</sup> Such techniques may include word recognition by Hidden Markov Models that perform spectral analysis of a speech waveform to generate a feature vector sequence which is then quantized to form a symbol sequence.<sup>130</sup> Furui also describes requiring a user to speak individual letters for a system to recognize, in order to cope with the limited vocabulary size of then-current (1989) word recognizers.<sup>131</sup> Furui also describes a continuous speech recognition system that extracts spectral information from an audio input, generates a phoneme lattice from the spectral information, and generates a word lattice from the phoneme lattice using stress information, syllable information, and a word dictionary that takes allophones and coarticulation into account.<sup>132</sup> Furui further describes another continuous speech recognition

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<sup>129</sup> See Furui, page 225, lines 11-13.

<sup>130</sup> See Furui, Fig. 8.8; page 255, lines 29-38.

<sup>131</sup> See Furui, page 258, lines 16-29.

<sup>132</sup> See Furui, Fig. 8.15; page 276, lines 1-15.

system that estimates phoneme production probability using Markov models, where phonemes are recognized from feature vectors generated from spectral analysis.<sup>133</sup>

A. Claims 2, 11, 18 and 24

Claim 2 recites the method for processing a voice message of Claim 1, wherein each of the stored voice representations is a phoneme representation of a word or phrase. Claim 11 recites the method for analyzing voice information received from a person over a communications line of Claim 1, wherein each of the stored voice representations is a phoneme representation of a word or phrase. Claim 18 recites the apparatus for processing a voice message of Claim 17, wherein each of the stored voice representations is a phoneme representation of a word or phrase. Claim 24 recites the apparatus for analyzing voice information received from a person over a communications line, wherein each of the stored voice representations is a phoneme representation of a word or phrase.

Claims 2, 11, 18 and 24 depend from Claims 1, 10, 17 and 23, respectively, and each includes all the limitations of its respective base claim. As such, the arguments for the patentability of Claims 1, 10, 17 and 23 over McDonough and Epstein also apply to Claims 2, 11, 18 and 24 and are incorporated by reference. Furthermore, nothing in Furui teaches a phoneme representation of a word or phrase as a stored voice representation in the context of the methods and apparatuses of Claims 1, 10, 17 and 23.

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<sup>133</sup> See Furui, page 278, lines 3-9.

For at least these reasons, the rejection of Claims 2, 11, 18 and 24 pursuant to 35 U.S.C. § 103(a) is improper. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claims 2, 11, 18 and 24 in the application.

B. Claims 3, 12, 19, 25, 31 and 38

Claim 3 recites the method for processing a voice message of Claim 2, wherein the received voice message is an analog voice message, the method further comprising:

converting the analog voice message from analog to digital; and  
processing the digitized voice message into phonemes;  
wherein analyzing the voice message to determine if one or more of the stored voice representations are used includes comparing the phonemes from the voice message with one or more of the stored voice representations.

Claim 12 recites the method of Claim 11, with additional limitations analogous to the additional limitations of Claim 3.

Claim 19 recites the apparatus of claim 18, further comprising:

an analog to digital converter for converting an analog voice message from analog to digital; and  
wherein the processor is further for processing the digitized voice message into phonemes and comparing the phonemes from the voice message with one or more of the stored voice representations.

Claim 25 recites the apparatus of Claim 24, with additional limitations analogous to the additional limitations of Claim 19.

Claim 31 recites the method of Claim 30, further comprising:

converting the analog voice message from analog to digital; and  
processing the digitized voice message into phonemes.

Claim 38 recites the method of Claim 37, with additional limitations analogous to the additional limitations of Claim 31.

Claims 3, 12, 19, 25, 31 and 38 depend from Claims 2, 11, 18, 24, 30 and 37, respectively, and each includes all the limitations of its respective base claim. As such, the arguments for the patentability of Claims 2, 11, 18, 24, 30 and 37 over McDonough, Epstein, and Furui also apply to Claims 3, 12, 19, 25, 31 and 38 and are incorporated by reference. Furthermore, nothing in Furui teaches converting an analog received voice message from analog to digital, processing the converted message into phonemes, or comparing the phonemes from the voice message with stored voice representations in the context of the methods and apparatuses of Claims 2, 11, 18, 24, 30 and 37.

For at least these reasons, the rejection of Claims 3, 12, 19, 25, 31 and 38 pursuant to 35 U.S.C. § 103(a) is improper. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claims 3, 12, 19, 25, 31 and 38 in the application.

C. Claim 33

Claim 33 recites the method of Claim 30, wherein the stored actions include marking the message as urgent.

Claim 33 depends from Claim 30 and includes all the limitations of Claim 30. As such, the arguments for the patentability of Claim 30 over McDonough and Epstein also apply to Claim 33 and are incorporated by reference.

Examiner Godbold asserts that the additional limitations of Claim 33 are similar to the additional limitations of Claim 6 and cites to the rejection of Claim 6 to explain the rejection of Claim 33.<sup>134</sup> In rejecting Claim 6, Examiner Godbold cited column 17, line 40, as describing “marking the message as urgent.” Taken in context, the cited passage actually describes “adding mood stamps or urgency/confidentiality stamps in a header in one of said facsimile and e-mail.”<sup>135</sup>

Epstein further explains that:

[E]-mail messages (and other messages created by application specific software such as LOTUS NOTES) may be processed in accordance with mood stamps, i.e., informational fields provided by certain mailing programs such as LOTUS NOTES which allow the sender to indicate the nature of the message such as the confidentiality or urgency of the message.<sup>136</sup>

Epstein describes a system that handles voice calls and data calls separately.<sup>137</sup> Voice calls are analyzed for caller identity and/or subject matter and processed accordingly.<sup>138</sup> Nowhere in the description of handling a voice call does Epstein describe storing urgency information relating to the call, as is described for facsimile and e-mail messages. Furthermore, nothing in McDonough, Epstein, or Furui teaches marking the message as urgent in the context of the method of Claim 30.

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<sup>134</sup> See Office Action mailed September 10, 2009, page 24, section 40.

<sup>135</sup> Epstein, col. 17, lines 40-42.

<sup>136</sup> Epstein, col. 2, lines 30-35.

<sup>137</sup> See Epstein, Figs. 3A and 3B; col. 6, lines 56-61

<sup>138</sup> See Epstein, Fig. 3A.

For at least these reasons, the rejection of Claim 33 pursuant to 35 U.S.C. § 103(a) is improper. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claim 33 in the application.

D. Claim 34

Claim 34 recites the method of Claim 30, wherein the stored actions include calling a pager.

Claim 34 depends from Claim 30 and includes all the limitations of Claim 30. As such, the arguments for the patentability of Claim 30 over McDonough and Epstein also apply to Claim 34 and are incorporated by reference. Examiner Godbold asserts that the additional limitations of Claim 34 are similar to the additional limitations of Claim 7 and cites to the rejection of Claim 7 to explain the rejection of Claim 34.<sup>139</sup> The Appellant respectfully submits that nothing in McDonough, Epstein, or Furui teaches calling a pager in the context of the method of Claim 30.

For at least these reasons, the rejection of Claim 34 pursuant to 35 U.S.C. § 103(a) is improper. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claim 34 in the application.

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<sup>139</sup> See Office Action mailed September 10, 2009, page 24, section 40.

E. Claims 42 and 45

Claim 42 recites the apparatus of claim 41, further comprising:

a user interface for receiving user specified actions, wherein the actions are to be performed in the event the voice message is found to exhibit the predetermined pattern of speech; and  
wherein the storage device is further for storing the user specified actions.

Claim 45 recites the apparatus of Claim 44, with additional limitations analogous to the additional limitations of Claim 42.

Claims 42 and 45 depend from Claims 41 and 44, respectively, and each includes all the limitations of its respective base claim. As such, the arguments for the patentability of Claims 41 and 44 over McDonough and Furui also apply to Claims 42 and 45 and are incorporated by reference. Examiner Godbold asserts that the additional limitations of Claims 42 and 45 are similar to the additional limitations of Claims 6 and 7, respectively, and cites to the rejection of Claims 6 and 7 to explain the rejection of Claims 42 and 45.<sup>140</sup> The Appellant respectfully submits that nothing in McDonough, Epstein, or Furui teaches a user interface for receiving user specified actions and a storage device for storing the user specified actions in the context of the apparatuses of claims 41 and 44.

For at least these reasons, the rejection of Claims 42 and 45 pursuant to 35 U.S.C. § 103(a) is improper. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claims 42 and 45 in the application.

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<sup>140</sup> See Office Action mailed September 10, 2009, page 24, section 42; page 25, section 43.



F. Claim 53

Claim 53 recites a computer readable medium whose contents cause a computer to perform a procedure for processing a voice message comprising:

- receiving a voice message;
- analyzing the voice message to determine if the voice message exhibits a predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice message and a frequency of the speech in the voice message; and
- performing one or more stored actions, if the predetermined pattern of speech is determined to occur in the voice message.

Examiner Godbold asserts that the limitations of Claim 53 are similar to the limitations of Claim 30 with additional limitations similar to limitations set forth in Claim 51 and, without further explanation, states that “McDonough, Furui, and Epstein describe and make obvious the limitations as indicated there.”<sup>141</sup> The Appellant will argue the patentability of Claim 53 along with Claim 30.

G. Claim 54

Claim 54 recites a computer readable medium whose contents cause a computer to perform a procedure for processing a voice message comprising:

- receiving voice information from a person over a communications line;
- analyzing the voice information from the person to determine if the voice information exhibits a predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice information and a frequency of the speech in the voice information; and
- performing one or more stored actions if the voice information is determined to exhibit the predetermined pattern of speech.

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<sup>141</sup> See Office Action mailed September 10, 2009, page 25, section 44.

Examiner Godbold asserts that the limitations of Claim 54 are similar to the limitations of Claim 37 with additional limitations similar to limitations set forth in Claim 51 and, without further explanation, states that “McDonough, Furui, and Epstein describe and make obvious the limitations as indicated there.”<sup>142</sup> The Appellant will argue the patentability of Claim 54 along with Claim 37.

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<sup>142</sup> See Office Action mailed September 10, 2009, page 25, section 45.

**Ground of Rejection #3**

Claims 30, 32, 35-37, 39-41, 43-44, 46, and 49-50 stand rejected as unpatentable under 35 U.S.C. 103(a) as being unpatentable over McDonough and Epstein in view of Furui.

A. Claims 30, 35, 36, 37, 40, 41, 43, 44, 46, 49, 50, 53 and 54

Claim 30 recites a method for processing a voice message, comprising:

storing one or more actions;  
receiving a voice message;  
analyzing the voice message to determine if the voice message exhibits a predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice message and a frequency of the speech in the voice message; and  
performing one or more of the stored actions, if the predetermined pattern of speech is found to occur in the voice message.

Examiner Godbold asserts that Furui describes a predetermined pattern representing a tone of speech at page 276,<sup>143</sup> lines 1-15 and Figure 8.15, “as a lattice taking account of allophones, coarticulation, stress, and syllables.”<sup>144</sup> The Examiner further states that Furui describes a predetermined pattern of speech at page 278, lines 3-9, “as Markov models for recognition of input speech converted into spectral feature vectors by DFT.” The Appellant respectfully submits that, far from interpreting the claims in light of the Specification, the Examiner’s interpretation is unreasonably broad and completely ignores the Specification.

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<sup>143</sup> See Office Action mailed September 10, 2009, page 27, lines 7-9. The Office Action actually cites page 8, lines 1-15. As page 8 of Furui was not provided by the Examiner and lines 1-15 of page 276 discuss Figure 8.15, the Appellant has interpreted the Examiner’s citation as page 276, lines 1-15.

<sup>144</sup> *Ibid.*

The Specification discusses analyzing a call or message “by examining the tone of the caller’s voice and the frequency of their speech. For example, if the voice information is rapid, loud, and high in tone, this may be indicative of a caller being stressed or angry.”<sup>145</sup> A voice message may be “analyzed for speech frequency and tone in order to gain information regarding the message. For example, if a message is urgent, a caller may speak rapidly, be out of breath, or be speaking in a high pitch. Thus, the voice message may be analyzed looking for these characteristics.”<sup>146</sup> Also, voice information may be:

analyzed looking for particular speech characteristics, such as frequency and tone. As such, information regarding the prospective customer or called person may be gained by analyzing their speech for these characteristics. For example, a prospective customer's speech may be analyzed to determine if they are angry by analyzing their speech for characteristics indicative of a person being angry.<sup>147</sup>

These are the only references to tone of speech and frequency of speech in the Specification.

Thus, it is clear that the terms “tone of speech” and “frequency of speech” in Claim 30 means non-linguistic characteristics, such as high pitched, loud, breathless, or rapid speech. Such an interpretation is not improperly reading limitations from the specification into the claims, it is properly interpreting the claims in light of the specification.

By asserting that Furui’s discussion of allophones, coarticulation, stress, and syllables describes a pattern representing a “tone of speech,” Examiner Godbold interprets “tone of speech” as merely “tone.” By asserting that Furui’s discussion of Markov models using spectral feature vectors received from a DFT describes a pattern representing a “frequency of speech,”

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<sup>145</sup> Specification, page 4, lines 19-21.

<sup>146</sup> Specification, page 7, lines 8-11.

<sup>147</sup> Specification, page 9, lines 30-31.

Examiner Godbold interprets “frequency of speech” as merely “frequency.” It is only by ignoring the actual language of Claim 30 that Furui can be argued to teach these elements of the claim.

As such, the cited references fail to describe all the elements of Claim 30 and a *prima facie* case of obviousness has not been shown. For at least these reasons, the rejection of Claim 30 pursuant to 35 U.S.C. § 103(a) is improper. Claims 37, 41, 44, 49, 50, 53 and 54 recite limitations analogous to the novel and non-obvious limitations emphasized in traversing the rejection of Claim 30 and, therefore the rejection of Claims 37, 41, 44, 49 and 50 pursuant to 35 U.S.C. § 103(a) also is improper. Claims 35, 36, 40, 43 and 46 are allowable as depending from allowable base claims. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claims 30, 35, 36, 37, 40, 41, 43, 44, 46, 49, 50, 53 and 54 in the application.

B. Claims 32 and 39

Claim 32 recites the method of Claim 30, further comprising:

the user specifying one or more actions, wherein the actions are to be performed in the event the predetermined pattern of speech is found in the voice message;  
storing the user specified one or more actions; and  
wherein in performing one or more stored actions, the stored actions include the user specified actions.

Claim 39 recites the apparatus of Claim 37, with additional limitations analogous to the additional limitations of Claim 32.

Claims 32 and 39 depend from Claims 30 and 37 and include all the limitations of Claims 30 and 37. As such, the arguments for the patentability of Claims 30 and 37 over McDonough and Furui also apply to Claims 32 and 39 and are incorporated by reference.

Examiner Godbold asserts that the additional limitations of Claims 32 and 39 are similar to the additional limitations of Claims 5 and 14, respectively, and cites to the rejection of Claims 5 and 14 to explain the rejection of Claims 32 and 39.<sup>148</sup> In rejecting Claims 5 and 14, Examiner Godbold asserts that McDonough teaches a user “specifying actions to be performed if the voice representation is found in the voice message.”<sup>149</sup> Appellant respectfully submits that the rejection does not address the actual language of the claims. Claims 5 and 14 recite “the user specifying one or more actions,” not “specifying actions to be performed.”

The passage of McDonough relied upon by Examiner Godbold does not describe a user specifying actions.<sup>150</sup> Instead McDonough describes a system in which “it is assumed that all possible actions are known,” while “the system has the capacity to interactively learn new vocabulary words” that a user may associate with a desired action.<sup>151</sup> That is, all possible actions are already specified and stored in the system, new vocabulary words can be learned, and a user can associate the new words with an existing action. Thus, McDonough does not describe steps of (i) a user specifying one or more actions, and (ii) storing the user specified actions.

As such, the cited references fail to describe all the elements of Claims 5 and 14 and a *prima facie* case of obviousness has not been shown. For at least these reasons, the rejection of

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<sup>148</sup> See Office Action mailed September 10, 2009, page 28, sections 48 and 51.

<sup>149</sup> See Office Action mailed September 10, 2009, page 6, lines 16-17.

<sup>150</sup> See McDonough, col. 2, lines 1-24.

<sup>151</sup> *Ibid.* (Emphasis added).

Claims 5 and 14 pursuant to 35 U.S.C. § 103(a) is improper. Appellants respectfully request that the Board of Appeals reverse the decision of the Examiner rejecting Claims 5 and 14 in the application.

**Conclusion**

The Appellant respectfully submits that the cited references are improper for reasons detailed above and requests that the rejections under § 103 be withdrawn.



**Requested Relief**

The Board is respectfully requested to reverse the outstanding rejections and return this application to the Examiner for allowance.

Respectfully submitted,  
MUNCK CARTER, LLP

Date: 4/12/2010



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APPENDIX A -  
CLAIMS APPENDIX

1. (Previously Presented) A method for processing a voice message, comprising:  
  
storing one or more voice representations, wherein each voice representation corresponds to a word or phrase and is associated with a value;  
  
storing one or more actions;  
  
receiving a voice message;  
  
receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation;  
  
analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message; and  
  
performing one or more of the stored actions based on the final criteria measurement value if one or more of the stored voice representations are found to occur in the voice message.
2. (Original) The method of claim 1, wherein each of the stored voice representations is a phoneme representation of a word or phrase.

3. (Previously Presented) The method of claim 2, wherein the received voice message is an analog voice message, the method further comprising:

converting the analog voice message from analog to digital; and

processing the digitized voice message into phonemes;

wherein analyzing the voice message to determine if one or more of the stored voice representations are used includes comparing the phonemes from the voice message with one or more of the stored voice representations.

4. (Canceled)

5. (Previously Presented) The method of claim 1, further comprising:

the user specifying one or more actions, wherein the actions are to be performed in the event one or more of the voice representations are found in the voice message;

storing the user specified one or more actions; and

wherein in performing one or more of the stored actions, the stored actions include the user specified actions.

6. (Previously Presented) The method of claim 1, wherein the stored one or more actions include marking the message as urgent.

7. (Previously Presented) The method of claim 1, wherein the stored one or more actions include calling a pager.

8. (Previously Presented) The method of claim 1, wherein the stored one or more actions include forwarding the voice message.

9. (Original) The method of claim 1, wherein the voice message is received over a telephone line.

10. (Previously Presented) A method for analyzing voice information received from a person over a communications line, comprising:

storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a value;

storing one or more actions;

receiving voice information from a person over a communications line;

receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation;

analyzing the voice information from the person to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice information received from the person and to generate a final criteria measurement value

associated with the voice information, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice information; and

performing one or more of the stored actions based on the final criteria measurement value if the voice information is found to include one or more of the stored voice representations.

11. (Original) The method of claim 10, wherein each of the stored voice representations is a phoneme representation of a word or phrase.

12. (Previously Presented) The method of claim 11, wherein the received voice information is analog voice information, the method further comprising:

converting the analog voice information from analog to digital; and

processing the digitized voice information in phonemes;

wherein analyzing the voice information to determine if one or more of the stored voice representations are used includes comparing the phonemes from the voice information with one or more of the stored voice representations.

13. (Canceled).

14. (Previously Presented) The method of claim 10, further comprising :
- the user specifying one or more actions, wherein the actions are to be performed in the event one or more of the stored voice representations are found in the voice information;
- storing the user specified actions; and
- wherein in performing one or more of the stored actions, the stored actions include the user specified actions.
15. (Previously Presented) The method of claim 10, wherein:
- receiving voice information comprises receiving voice information during a call; and
- the one or more actions include compiling statistics on the call.
16. (Original) The method of claim 10, wherein the communications line is a telephone line.
17. (Previously Presented) An apparatus for processing a voice message, comprising:
- a storage device for storing one or more voice representations where each voice representation corresponds to a word or phrase and is associated with a criteria measurement value, and for storing one or more actions;
- an interface for receiving from a user a one of: a user-specified word and a user-specified phrase; and
- a processor for receiving a voice message, analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified

word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message, and performing one or more of the stored actions based on the final criteria measurement value if one or more of the stored voice representations are found to occur in the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.

18. (Original) The apparatus of claim 17, wherein each of the voice representations is a phoneme representation of a word or phrase.

19. (Previously Presented) The apparatus of claim 18, further comprising:

an analog to digital converter for converting an analog voice message from analog to digital; and

wherein the processor is further for processing the digitized voice message into phonemes and comparing the phonemes from the voice message with one or more of the stored voice representations.

20. (Canceled)

21. (Previously Presented) The apparatus of claim 17, further comprising:

a user interface for receiving user specified actions, wherein the actions are to be performed in the event one or more of the stored voice representations are found in the voice message; and

wherein the storage device is further for storing the user specified actions.

22. (Original) The apparatus of claim 17, wherein the apparatus is connected to a telephone line, and the processor is capable of receiving the voice message over the telephone line.

23. (Previously Presented) An apparatus for analyzing voice information received from a person over a communications line, comprising:

a storage device for storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a value, and for storing one or more actions;

an interface for receiving a one of: a user-specified word and a user-specified phrase; and

a processor for receiving voice information from a person over a communications line, analyzing the voice information to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice information received from the person and to generate a final criteria measurement value associated with the voice information, and performing one or more of the stored actions based on the final criteria measurement value if the voice information is found to include one or more of the stored voice



representations, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice information.

24. (Original) The apparatus of claim 23, wherein each of the voice representations is a phoneme representation of a word or phrase.

25. (Original) The apparatus of claim 24, wherein the received voice information is analog voice information, further comprising:

an analog to digital converter for converting the analog voice information from analog to digital; and

wherein the processor is further for processing the digitized voice information into phonemes and comparing the phonemes from the voice information with one or more of the stored voice representations.

26. (Canceled).

27. (Previously Presented) The apparatus of claim 23, further comprising:

a user interface for receiving information regarding user specified actions, wherein the actions are to be performed in the event one or more of the voice representations are found in the voice information; and

wherein the storage device is further for storing the user specified actions.

28. (Previously Presented) The apparatus of claim 23, wherein:  
the voice information is received during a call; and  
the one or more actions include compiling statistics on the call.
29. (Original) The apparatus of claim 23, wherein the processor is capable of receiving the voice information over a telephone line.
30. (Previously Presented) A method for processing a voice message, comprising:  
storing one or more actions;  
receiving a voice message;  
analyzing the voice message to determine if the voice message exhibits a predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice message and a frequency of the speech in the voice message; and  
performing one or more of the stored actions, if the predetermined pattern of speech is found to occur in the voice message.
31. (Original) The method of claim 30, further comprising:  
converting the analog voice message from analog to digital; and  
processing the digitized voice message into phonemes.

32. (Previously Presented) The method of claim 30, further comprising:  
the user specifying one or more actions, wherein the actions are to be performed in the event the predetermined pattern of speech is found in the voice message;  
storing the user specified one or more actions; and  
wherein in performing one or more stored actions, the stored actions include the user specified actions.
33. (Original) The method of claim 30, wherein the stored actions include marking the message as urgent.
34. (Original) The method of claim 30, wherein the stored actions include calling a pager.
35. (Original) The method of claim 30, wherein the stored actions include forwarding the voice message.
36. (Original) The method of claim 30, wherein the voice message is received over a telephone line.

37. (Previously Presented) A method for analyzing voice information received from a person over a communications line, comprising:

storing one or more actions;

receiving voice information from a person over a communications line;

analyzing the voice information from the person to determine if the voice information exhibits a predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice information and a frequency of the speech in the voice information; and

performing one or more of the stored actions if the voice information is found to exhibit the predetermined pattern of speech.

38. (Original) The method of claim 37, further comprising:

converting the voice information from analog to digital; and

processing the digitized voice information into phonemes.

39. (Previously Presented) The method of claim 37, further comprising:

the user specifying one or more actions, wherein the actions are to be performed in the event one or more of the voice representations are found in the voice information;

storing the user specified one or more actions; and

wherein in performing one or more stored actions, the stored actions include the user specified actions.

40. (Original) The method of claim 37, wherein the communications line is a telephone line.

41. (Previously Presented) An apparatus for processing a voice message, comprising:

a storage device for storing information regarding a predetermined pattern of speech, and for storing one or more actions, the predetermined pattern of speech representing at least one of a tone of speech in the voice message and a frequency of the speech in the voice message; and

a processor for receiving a voice message, analyzing the voice message to determine if the voice message exhibits the predetermined pattern of speech, and performing one or more of the stored actions if the voice message is found to exhibit the predetermined pattern of speech.

42. (Previously Presented) The apparatus of claim 41, further comprising:

a user interface for receiving user specified actions, wherein the actions are to be performed in the event the voice message is found to exhibit the predetermined pattern of speech; and

wherein the storage device is further for storing the user specified actions.

43. (Previously Presented) The apparatus of claim 41, wherein the apparatus is connected to a telephone line and wherein the processor is capable of receiving the voice message over the telephone line.

44. (Previously Presented) An apparatus for analyzing voice information received from a person over a communications line, comprising:

a storage device for storing information regarding a predetermined pattern of speech, and for storing one or more actions, the predetermined pattern of speech representing at least one of a tone of speech in the voice information and a frequency of the speech in the voice information; and

a processor for receiving voice information from a person over a communications line, analyzing the voice information to determine if the voice information exhibits the predetermined pattern of speech, and performing one or more of the stored actions if the voice information is found to exhibit the predetermined pattern of speech.

45. (Original) The apparatus of claim 44, further comprising:

a user interface for receiving information regarding user specified actions, wherein the actions are to be performed in the event the voice information is found to exhibit the predetermined pattern of speech; and

wherein the storage device is further for storing the user specified actions.

46. (Original) The apparatus of claim 44, wherein the apparatus is connected to a telephone line and wherein the processor is capable of receiving the voice information over the telephone line.

47. (Previously Presented) An apparatus for processing a voice message, comprising:

means for storing one or more voice representations, wherein each voice representation corresponds to a word or phrase and is associated with a value, and for storing one or more actions;

means for receiving a voice message;

means for receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation; and

means for analyzing the voice message to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice message and to generate a final criteria measurement value associated with the voice message, and performing one or more of the stored actions based on the final criteria measurement value, if one or more of the stored voice representations are found to occur in the voice message, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice message.

48. (Previously Presented) An apparatus for analyzing voice information received from a person over a communications line, comprising:

means for storing one or more voice representations, where each voice representation corresponds to a word or phrase and is associated with a value, and for storing one or more actions;

means for receiving voice information from a person over a communications line;

means for receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation; and

means for analyzing the voice information from the person to determine if one or more of the stored voice representations corresponding to the received user-specified word or phrase occur in the voice information received from the person and to generate a final criteria measurement value associated with the voice information, and performing one or more of the stored actions based on the final criteria measurement value if the voice information is found to include one or more of the voice representations, the final criteria measurement value based on the value associated with each determined stored voice representation occurring in the voice information.

49. (Previously Presented) An apparatus for processing a voice message, comprising:

means for storing one or more actions;

means for receiving a voice message; and

means for analyzing the voice message to determine if the voice message exhibits a predetermined pattern of speech, and performing one or more of the stored actions, if the predetermined pattern of speech is found to occur in the voice message, the predetermined pattern of speech representing at least one of a tone of speech in the voice message and a frequency of the speech in the voice message.



50. (Previously Presented) An apparatus for analyzing voice information received from a person over a communications line, comprising:

means for storing one or more actions;

means for receiving voice information from a person over a communications line; and

means for analyzing the voice information from the person to determine if the voice information exhibits a predetermined pattern of speech, and performing one or more of the stored actions if the voice information is found to exhibit the predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice information and a frequency of the speech in the voice information.

51. (Previously Presented) A computer readable medium whose contents cause a computer to perform a procedure for processing a voice message comprising:

receiving a voice message;

receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation;

analyzing the voice message to determine if one or more stored voice representations corresponding to the received user-specified word or phrase occur in the voice message, wherein each voice representation corresponds to a word or phrase and is associated with a value, wherein analyzing the voice message comprises generating a final criteria measurement value associated with the voice message; and

performing one or more stored actions based on the final criteria measurement value if one or more of the stored voice representations are determined to occur in the voice message.

52. (Previously Presented) A computer readable medium whose contents cause a computer to perform a procedure for processing voice information comprising:

receiving voice information from a person over a communications line;

receiving a one of: a user-specified word and a user-specified phrase from a user, the received user-specified word or phrase corresponding to a word or phrase having a corresponding stored voice representation;

analyzing the voice information from the person to determine if one or more stored voice representations corresponding to the received user-specified word or phrase occur in the voice information, wherein each voice representation corresponds to a word or phrase and is associated with a value, wherein analyzing the voice information comprises generating a final criteria measurement value associated with the voice information; and

performing one or more stored actions based on the final criteria measurement value if one or more of the stored voice representations are determined to occur in the voice information.

53. (Previously Presented) A computer readable medium whose contents cause a computer to perform a procedure for processing a voice message comprising:

receiving a voice message;

analyzing the voice message to determine if the voice message exhibits a predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice message and a frequency of the speech in the voice message; and

performing one or more stored actions, if the predetermined pattern of speech is determined to occur in the voice message.

54. (Previously Presented) A computer readable medium whose content cause a computer to perform a procedure for processing voice information comprising:

receiving voice information from a person over a communications line;

analyzing the voice information from the person to determine if the voice information exhibits a predetermined pattern of speech, the predetermined pattern of speech representing at least one of a tone of speech in the voice information and a frequency of the speech in the voice information; and

performing one or more stored actions if the voice information is determined to exhibit the predetermined pattern of speech.

APPENDIX B -  
Evidence Appendix

None.



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SERIAL No. 09/459,380  
PATENT

APPENDIX C -  
Related Proceedings Appendix

Not Applicable -- To the best knowledge and belief of the undersigned attorney, there are none.